

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method of fabricating an electro-optical device suitable for use in an image forming system, comprising the steps of:

- a) providing a substrate with at least one photosensor;
- b) applying a first filter layer above the substrate;
- c) applying an inter-filter layer over at least a portion of the first filter layer and on an area of the substrate not covered by the first filter layer, thereby smoothing a top surface of the electro-optical device without removing any material from the inter-filter layer, wherein the inter-filter layer is composed of an optically transmissive, ~~film-forming polymer~~ acrylic material; and
- d) applying a second filter layer over at least a portion of the inter-filter layer without removing the inter-filter layer, wherein at least one of the first filter layer and the second filter layer contains a pigment.

2. (original) A method as in claim 1, further including the step of applying a base layer on the substrate before the step of applying a first filter layer.

3. (original) A method as in claim 1, further including the step of mounting the electro-optical device in an image forming system.

4. (original) A method as in claim 1, wherein the inter-filter layer is substantially colorless.

5. (canceled)

6. (canceled)

7. (canceled)

8. (currently amended) A method of making an electro-optical device for image sensing, the method comprising:

- a) providing a substrate of the electro-optical device;
- b) inserting a first photosensor and a second photosensor into the substrate of the electro-optical device;
- c) applying a base layer on the substrate;
- d) covering an area of the base layer that overlies the first photosensor with a patterned first filter layer, the first filter layer allowing light having a wavelength within a first range to reach the first photosensor;
- e) applying a first inter-filter layer on the first filter layer and on an area of the base layer not covered by the first filter layer, thereby smoothing a top surface of the electro-optical device without removing any material from the first inter-filter layer, wherein the first inter-filter layer contains an optically transmissive acrylic material; and
- f) without removing any portion of the first inter-filter layer, covering an area of the first inter-filter layer that overlies the second photosensor with a patterned second filter layer, the second filter layer preferentially allowing light having a wavelength within a second range to reach the second photosensor, wherein at least one of the first filter layer and second filter layer contains a pigment.

9. (previously presented) A method as in claim 8, wherein at least one of the base layer and the first inter-filter layer is colorless and translucent.

10. (canceled)

11. (canceled)

12. (previously presented) A method as in claim 8, further comprising applying a second inter-filter layer on the second filter layer and on an area of the first inter-filter layer not covered by the second filter layer, thereby smoothing a second top surface of the electro-optical device.

13. (original) A method as in claim 12, wherein at least one of the base layer and the second inter-filter layer is colorless and translucent.

14. (original) A method as in claim 12, wherein the second inter-filter layer contains acrylic.

15. (canceled)

16. (original) A method as in claim 12, wherein the electro-optical device includes a linear array chip.

17. (currently amended) An electro-optical device for image sensing, comprising:

a) a substrate;
b) a first photosensor and a second photosensor disposed within the substrate;

a base layer applied to the substrate with the first and second photosensor disposed within the substrate;

c) a patterned first filter layer disposed on an area of the substrate that overlies the first photosensor, the first filter layer allowing light having a wavelength within a first range to reach the first photosensor;

d) a first inter-filter layer disposed permanently on the first filter layer and at least on a portion of the substrate, the first inter-filter layer smoothing a top surface of the electro-optical device without removing any material from the first inter-filter layer, wherein the first inter-filter layer contains a colorless and translucent optically transmissive acrylic material; and

e) a patterned second filter layer disposed on an area of the first inter-filter layer that overlies the second photosensor, the second filter layer preferentially allowing light having a wavelength within a second range to reach the second photosensor, wherein at least one of the first filter layer and second filter layer contains a pigment; and

a second inter-filter layer disposed on the patterned second

filter layer and on an area of the first inter-filter layer not covered by the patterned second filter layer, thereby smoothing a second top surface of the electro-optical device, wherein one or more of the said inter-filter layers includes a color to modify an incoming wavelength.

18. (canceled)

19. (canceled)

20. (canceled)

21. (previously presented) A method as in claim 1, wherein the step (c) of applying an inter-filter layer over at least the first filter layer includes applying the inter-filter layer over (i) a patterned first filter of the first filter layer and, (ii) one of the substrate or a base layer.

22. (previously presented) A method as in claim 1, wherein the step (d) including without removing the inter-filter layer, includes not polishing or grinding the inter-filter layer.

23. (previously presented) A method as in claim 1, wherein the inter-filter layer is provided with a color to modify an incoming wavelength.